

Appl. No.: 10/510,270
Amdt. dated 05/01/2006
Reply to Office action of January 31, 2006

REMARKS/ARGUMENTS

In light of the following remarks, reexamination and reconsideration of this application, withdrawal of the rejections, and formal notification of the allowability of all claims as presented are earnestly solicited. As detailed in the Office Action mailed January 31, 2006, Claims 1-16 are pending, wherein Claims 1-3, 5-11, and 13-16 have been allowed and Claims 4 and 12 have been rejected. In response, the Applicant traverses the rejections. It is believed that the claims define patentable subject matter contrary to the allegations in the Office Action and notice to such effect is requested at the Examiner's earliest convenience.

Claim Rejections – 35 U.S.C. §112

Claims 4 and 12 were rejected as being indefinite under 35 U.S.C. §112, second paragraph, wherein the Office Action alleges that the term "Canadian Standard Freeness (CSF)" used in the rejected claims is not a universally-recognized term. Instead, the Office Action suggests using an English or metric standard equivalent. In response, the Applicant traverses this rejection.

More particularly, the Applicant is not aware of any requirement in the MPEP that a term used in a claim must be "universally recognized." In any instance, the Applicant submits that the term "Canadian Standard Freeness (CSF)" is, in fact, a universally-recognized term of art referring to a measure of the drainage characteristics (i.e., "dewatering rate") of pulp. In support of this submission, the Applicant has attached a copy of page 1 of ISO Standard 5267-2:2001 to this paper, wherein ISO Standard 5267-2:2001 documents the Canadian Standard Freeness method for determining drainability of pulp. As such, the Applicant respectfully requests withdrawal of these rejections.

Notice of References Cited

In Form PTO-892 "Notice of References Cited" attached to the present Office Action, the Applicant notes that one of the references cited by the Office in this matter is U.S. Patent Application Publication No. US 2005/0116072A1 to Touvinen. In this regard, the Applicant submits that US 2005/0116072A1 is the U.S. publication of U.S. Patent Application Serial No.

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10/510,270. U.S. Patent Application Serial No. 10/510,270 is the serial number of the present patent application now pending. As such, the Applicant notes that the published application cannot constitute prior art against the claims now pending in the same application, and thus requests withdrawal of this citation from the "Notice of References Cited."

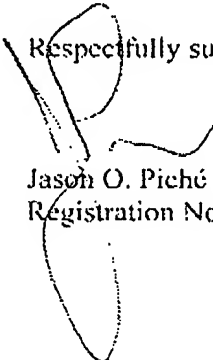
Conclusion

In summary, having overcome the rejections set forth in the Office Action as detailed in the remarks herein, the Applicant submits that embodiments of the present invention, as defined by Claims 4 and 12, are patentable. As such, Claims 4 and 12 are believed to be in condition for immediate allowance, in addition to Claims 1-3, 5-11, and 13-16 which have already been allowed.

In conclusion, for the reasons set forth above, the Applicant submits that all claims now pending are in condition for immediate allowance. Accordingly, notice to such effect is respectfully requested at the Examiner's earliest opportunity.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,


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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (571) 273-8300 on the date shown below.

Tracey S. Wright
Tracey S. Wright

May 1, 2006
Date

STANDARD C.1

Approved Method, October, 1940
 Revised, May, 1952
 Revised, October, 1962
 Revised, September, 1967
 Revised, June, 1969
 Revised, April, 1972
 Revised, October, 1981

THE DETERMINATION OF FREENESS

The Canadian Standard Freeness test is designed to give a measure of the rate at which a dilute suspension of pulp may be dewatered. The drainage rate, or freeness, has been shown to be related to the surface conditions and swelling of the fibres, and is a useful index of the amount of mechanical treatment given to the pulp.

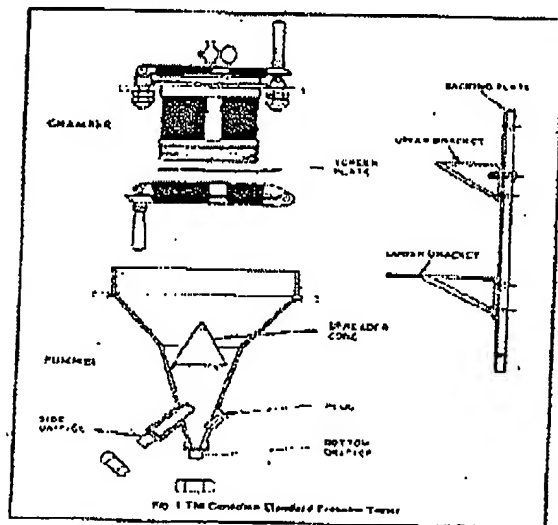
SCOPE

The procedure was originally designed to yield a test value suitable primarily for the control of manufacture of groundwood pulp. It is also widely used to follow the changes in drainage rate of various chemical pulps during beating or refining. Treatments which produce a large proportion of fines may sometimes cause an anomalous rise of freeness (false freeness) usually at values below 100 mL. Freeness values do not necessarily correlate with the drainage behaviour of pulp material on a commercial paper machine.

APPARATUS

The Canadian Standard Freeness Tester consists of a drainage chamber and a rate-measuring funnel mounted on a suitable support, as described below.

A drawing of the Canadian Standard Freeness Tester is shown in Figure 1.



The apparatus is manufactured to drawings and specifications approved by the Technical Section, Canadian Pulp and Paper Association and each instrument is inspected and calibrated by the Pulp and Paper Research Institute of Canada (PAPRICAN) before delivery.

The chamber is a metal cylinder, the bottom of which contains a perforated brass screen plate and is closed with an air-tight lid, hinged on one side of the cylinder and latched at the other. The lid should be fitted so that not more than 5 mL of water will flow when the bottom cover is opened at the start of the test.

The upper end of this cylinder is closed by a similar lid, attached to the shell bracket in which the cylinder is held when in use. The hinge and latching mechanisms are designed to provide an air-tight closure by means of a rubber gasket on the inside of the lid. An air-cock is inserted in the centre of the upper lid to admit air to the cylinder at the start of the test.

The cylinder is 101.6 mm inside diameter by 127.0 mm inside height. The height gives a capacity of slightly over 1000 mL above the screen plate. The air-cock bore is 4.8 mm. This dimension is not critical but should not be substantially reduced.

The screen plate is 11.0 ± 0.51 mm diameter, 0.51 mm thick and has perforations of 0.51 mm diameter spaced 635 per 25.4 mm² of surface. The plate is mounted so that the butt of the punched perforations is downward. Since it has not been possible to duplicate these plates by reference to dimensions of the holes, all plates are standardized by comparison against master plates at PAPRICAN.

The rate-measuring funnel is of 203 mm open top diameter by overall length 277.9 mm. The main cone has a $29^\circ \pm 5'$ slope on the inside which flares out into a top cylindrical portion. The bottom (apex) terminates in a carefully machined orifice piece attached to the bottom of the funnel. The funnel is also provided with a side discharge orifice.

The side discharge orifice consists of a hollow tube, 12.7 mm inside diameter, which penetrates the wall of the funnel. This tube is inserted so that the distance between the overflow lip of the tube (inside the funnel) and the bottom of the funnel section is 50.8 ± 0.76 mm. This measurement is extremely critical and has been precisely set during calibration by PAPRICAN.

It must not be changed.

The volume in the bottom section of the funnel, between the bottom of the funnel and the overflow lip of the side orifice is adjusted to 23,540.2 mL. This volume is

Revised by the Testing Methods Committee
 and Approved by the Physical and Chemical Standards Committee,
 Technical Section, Canadian Pulp and Paper Association